

#### United States Southern Command Partnership for the Americas



Environmental Cooperation and Partnerships - US Southern Command Myrna I. López, Environmental Security Specialist E2S2, 11 May 2011 New Orleans, Louisiana

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# **Our Vision and Mission**

Vision: We are a joint & interagency organization supporting US national security interests, and with our partners, improving security, stability & prosperity in the Americas.



Mission: We are ready to conduct joint & combined full-spectrum military operations & support whole-of-government efforts to enhance regional security & cooperation.



### A Diverse Region





#### **Environmental Security Challenges and Opportunities**



#### **Urbanization/Slums**



**Resource Scarcity** 

Initiatives in key environmental security areas, which positively affect stability and security in Central & South America and the Caribbean



#### Water Resources



#### **Food Shortages**





**Socio-Economic Inequality** 

**High-Impact Natural Disasters** 

Climate Change alone does not cause conflict but may act as an accelerant of instability

# SOUTHERN COMMAND

### **Environmental Collaboration**

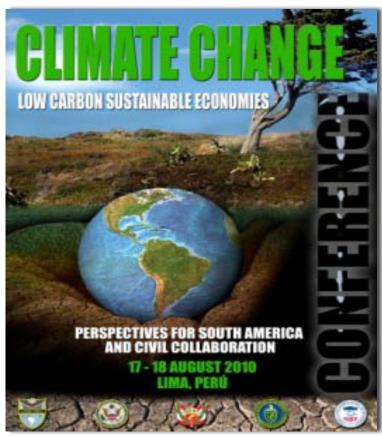
"DoD has undertaken environmental security cooperative initiatives with foreign militaries that represent a nonthreatening way of building trust, sharing best practices on installations management and operations, and developing response capacity" (QDR 2010)





# Perspectives for South America and CIV-MIL Collaboration

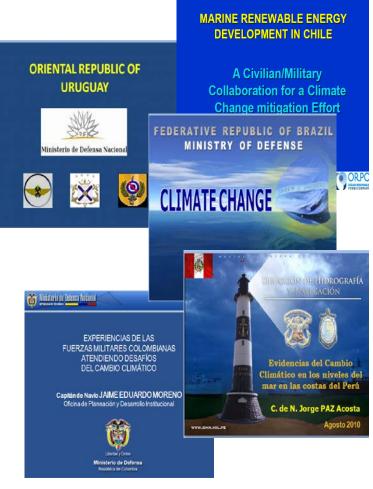
- USSOUTHCOM funded
- In partnership with
  - Department of State
  - o USAID
- Participants included
  - Military and Civilian entities from Perú, Brazil, Colombia, Paraguay, Uruguay, Argentina and Chile
  - UN Economic Commission for Latin America
  - o Non-governmental organizations and
  - US Navy Energy Task Force
  - US Department of Energy





### Perspectives for South America and CIV-MIL Collaboration

- Topics
  - Regional Climate Change Trends
  - Mitigation and Adaptation Issues
  - Civil-Military Collaboration in the Region
- Focused Discussions
  - Key trends and challenges from military perspective
  - CIV-MIL collaboration opportunities (Inter-governmental coordination)
  - Framework for future engagements
  - Lessons learned with the US Navy Energy Task Force





# What we learned from Partner Nations

- The Navy represents Peru at the UNESCO Intergovernmental Oceanographic Commission and collaborates with
  - o Global Sea Level Observation System
  - o Intergovernmental Panel on Climate Change
- The Navy coordinates the Peruvian National Working Group on Climate Change
- Peruvian Armed Forces are establishing a Special Command for Natural Disaster Rescuing Operations

UNCLASSIFIED



Peru

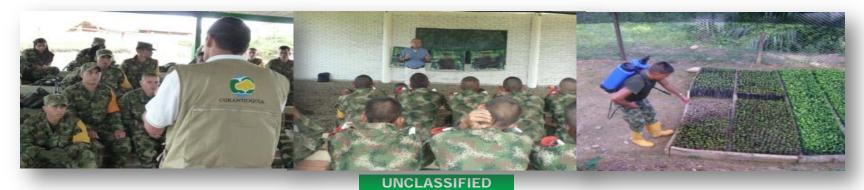


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# UNITED STATES BUTHERN COMMAND

### What we learned from Partner Nations Colombia

- Ministry of Defense plays a role in the Colombian "National Development Plan"
  - Implement policy for Environmental Management for the Security and Defense Sector
  - Support to prevention and control of environmental risks/response to natural disasters
  - Assess relation between narco-traffic (production/ transportation) and environmental degradation
  - Supports Park Service in protection of environmentally sensitive areas





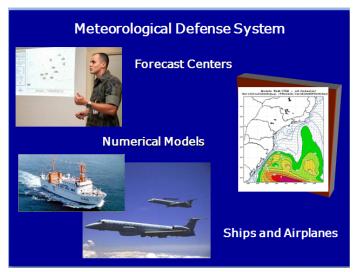


# What we learned from Partner Nations

- Brazil adopted a National Policy on Climate Change in 2009
- Ministry of Defense supports civilian entities
  - Meteorological Defense System
    - Surface/airborne stations and oceanographic buoys
    - Meteorological radars/forecast centers
    - Logistics for monitoring
  - o Disaster response
    - Hurricane forecast and tracking
    - Reconstruction after floods (bridges)
  - Surveillance in natural/environmental protected areas
  - o Climate Change mitigation
    - Use of alternate fuels to reduce green house gas emissions



Brazil





#### What we learned from Partner Nations Unclassified Unclassified Unclassified Unclassified Unclassified

- Uruguay established a Climate Change National Response System in 2009
  - National Defense Ministry is a member of the coordination group with 10 other Ministries
- Role of the National Defense Ministry
  - Control of Uruguay's biggest national park
  - Established environmental offices/directorates to support civilian agencies and NGOs
    - Pollution control
    - Environmental monitoring
    - Response to natural/man-made disaster









#### UNCLASSIFIED What we learned from Partner Nations Chile

- Climate Change National Advisory Committee
  - Proposing a Climate Change National Strategy Ο
  - Focus areas include adaptation, mitigation Ο and capacity to respond
  - Ministry of Defense is a member of the Ο Committee
    - Leading efforts in a tidal energy project
      - Resilience of Navy operations in remote locations
      - Post-earthquake reconstruction using innovative technologies
      - ✓ Reduce greenhouse gas emissions



Precipitaciones

las precipitaciones en

más significativas en

moderado.

moderado.

primavera y verano, siendo

primavera en la l Región bajo el

escenario severo, y más extendidas

Norte Chico

Se incrementan las precipitaciones

en otoño, pero en invierno afecta

solo a la región andina, con mayo incremento en la mitad norte

Zona Central

Bajan hasta un 40% en las tierras

hacia la ladera andina durante el

verano, reduciéndose en otoño e

Zona Sur Durante el verano, la

disminución es del orden de 40%, reduciéndose en

Zona Austral

Presenta pérdidas estivales de

hacia el invierno, y existe un

leve aumento en el extremo

sur que prevalece todo el añ

Fuentes: Estudio de Variabilidas Climática para Chile en el Siglo 21,

CONANA, 2007; IPCC, Cuarto de Evaluación 2007

un 25%, pero se normaliza

primavera a un 25%.

bajas, ganando en magnitud

invierno bajo un escenario

hacia la II Región bajo el escenario

Norte Grande Sobre el altiplano aumentan

#### Temperaturas

Domina el calentamiento en todas las regiones, siendo mayor para el escenario severo, donde se aprecia un aumento sobre Chile continental entre 2 y 4°C respecto al clima actual. Se acentúa más



hacia los sectores andinos y disminuye de norte a sur. Sólo en la Región Austral bajo el escenario moderado, hay sectores pequeños con calentamiento menor a 1°C. Estacionalmente, el calentamiento es mayor en verano, excediendo los 5°C en algunos sectores altos de la Cordilera de los



Andes

#### Impacto Hidrológico

Por aumento de temperatura, habrá reducción del área andina capaz de almacenar nieve Ello provocará incrementos en las crecidas

invernales de los ríos, particularmente en el sector cordillerano comprendido entre las latitudes 30 y 40°S, que corresponde a las regiones de mayor productividad desde el punto de vista silvo-agro pecuario y donde se ubica la generación hidroeléctrica del sistema interconectado

#### Nivel del Mar

Observaciones desde 1981 muestran que la temperatura promedio del océano global, ha aumentado hasta en profundidades de al menos 3000



metros, y que el océano ha estado absorbiendo más del 80% del calor adicionado al sistema climático. Tal calentamiento hace que el acua de mar se expanda, contribuyendo al aumento del nivel del mar. Frente a la costa de Chile existe va una disminución en el rivel del mar desde el sector norte, con algo más de 20 cm, hasta el mar circumpolar, donde las alzas bordean los 10 cm. Esto hace prever alzas entre 28 y 18 cm, bajo el escenario severo y entre 24 y 14 cm para el escenario moderado hacia fin de siglo.



### Partnership goal in the next five years

- Environmental and Energy topics part of Theater
   Security Cooperation with Partner Nations
  - Focus: Incorporate environmental and energy challenges in military planning
  - Collaborate on environmental monitoring, including climate change
  - Exchange information on:
    - environmental hazards/risks
    - environmental degradation
    - changing environmental conditions
    - best management practices for environmental stewardship
  - Share innovative approaches on energy:
    - improve energy efficiency
    - reduce fossil fuel dependency
    - improve operational effectiveness





#### **All Partners Access Network**





### **Questions?**



Creative Partnering: <u>www.southcom.mil</u> Link to All Partners Access Network (APAN): https://community.apan.org/es/default.aspx